

IT IS CLAIMED:

1. A method for treating a condition responsive to interferon tau therapy in a human subject, comprising orally administering interferon-tau to the intestinal tract of the subject in an amount effective to produce a measurable increase in the subject's serum 2', 5'-oligoadenylate synthetase (OAS) level, relative to the OAS level in the subject in the absence of interferon-tau administration.

2. The method of claim 1, wherein said interferon-tau is ovine interferon-tau.

3. The method of claim 2, wherein said ovine interferon-tau has a sequence identified as SEQ ID NO:2 or SEQ ID NO:3.

4. The method of claim 1, wherein said administering includes delivering to the subject's intestinal tract, an amount of interferon-tau at a dosage of greater than about  $1 \times 10^5$  units per day, over a period sufficient to effect said increase in OAS in the subject.

5. The method of claim 4, wherein said the dosage of interferon-tau is greater than about  $1 \times 10^8$  units per day.

6. The method of claim 1, for use in treating an autoimmune disorder in the subject, wherein said administering is carried out so as to achieve the desired increase in OAS over an extended period when the patient is symptomatic.

7. The method of claim 6, wherein said autoimmune condition is selected from multiple sclerosis, rheumatoid arthritis, lupus erythematosus, and type I diabetes mellitus.

8. The method of claim 1, for use in treating a viral infection, wherein said administering is carried out over a period sufficient to achieve the desired increase in OAS until the level of viral infection is reduced.

9. The method of claim 1, wherein said administering comprises administering interferon-tau in a dosage form that delivers the interferon-tau predominantly to the small intestine.

10. The method of claim 9, wherein the interferon-tau administered is formulated with a mucoadhesive polymer effective to enhance binding of the interferon to cells lining the intestinal wall.

11. The method of claim 1, further comprising monitoring the serum OAS level to ascertain if the OAS level is increased.

12. The method of claim 11, further comprising adjusting the amount of interferon-tau administered to the patient until a measurable increase in blood OAS, relative to the level observed prior to administering oral interferon-tau, is observed.